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Message: Enclosed herewith: <ul style="list-style-type: none">• Transmittal of Appeal Brief; and• Appeal Brief.	
Re: Application No. 10/045,111 Attorney Docket No: AUS920010994US1	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Berry**

Serial No.: 10/045,111

Filed: January 10, 2002

For: Method and Apparatus for Automatic Pruning of Search Engine Indices

Group Art Unit 2161

Examiner: Nguyen, Cam Linh T.

Attorney Docket No.: AUS920010994US1

35525

PATENT TRADEMARK OFFICE
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By:

Michele Morrow

TRANSMITTAL OF APPEAL BRIEF

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Appeal Brief (37 C.F.R. 41.37)

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Respectfully submitted,

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Docket No. AUS920010994US1

PATENT**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**In re application of: **Berry**

Serial No. 10/045,111

Filed: January 10, 2002

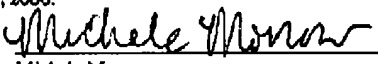
For: Method and Apparatus for
Automatic Pruning of Search Engine
Indices§
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Group Art Unit: 2161

Examiner: Nguyen, Cam Linh T.

Commissioner for Patents
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on June 5, 2006.

By:


Michele Morrow**APPEAL BRIEF (37 C.F.R. 41.37)**

This brief is in furtherance of the Notice of Appeal, filed in this case on April 3, 2006.

A fee of \$500.00 is required for filing an Appeal Brief. Please charge this fee to IBM Corporation Deposit Account No. 09-0447. No additional fees are believed to be necessary. If, however, any additional fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

(Appeal Brief Page 1 of 32)
Berry - 10/045,111

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS**A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

Claims in the application are: 1-12, 16-21, 23-35, 39-44 and 46

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: 13-15, 22, 36-38 and 45
2. Claims withdrawn from consideration but not canceled: NONE
3. Claims pending: 1-12, 16-21, 23-35, 39-44 and 46
4. Claims allowed: NONE
5. Claims rejected: 1-12, 16-21, 23-35, 39-44 and 46
6. Claims objected to: NONE

C. CLAIMS ON APPEAL

The claims on appeal are: 1-12, 16-21, 23-35, 39-44 and 46

STATUS OF AMENDMENTS

An Amendment after Final Rejection was not filed. Accordingly, the claims on appeal herein are as amended in the Response to Office Action dated November 30, 2005, and finally rejected in the Final Office Action dated January 3, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER**A. CLAIM 1 - INDEPENDENT**

The subject matter of claim 1 is directed to a method in a data processing system for pruning search engine indices. A notification is received by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords (524, Figure 5, 600, Figure 6, page 17, lines 4-7, page 17, line 28-page 18, line 10). The Web page is automatically deleted from the search engine indices in response to receiving the notification (Step 906, Figure 9, page 21, lines 15-18, also see page 17, lines 7-10).

B. CLAIM 8 - INDEPENDENT

The subject matter of claim 8 is directed to a method in a data processing system for managing entries in a Web page database. A notification is received by a search engine from a client browser that a retrieval error occurred for a Web page (524, Figure 5, 600, Figure 6, page 17, lines 4-7, page 17, line 28-page 18, line 10). An entry associated with the Web page is automatically deleted from the Web page database in response to receiving the notification (Step 906, Figure 9, page 21, lines 15-18, see also page 17, lines 7-10).

C. CLAIM 16 - INDEPENDENT

The subject matter of claim 16 is directed to a method in a data processing system for managing a set of bookmarks for a browser. A request for a Web page is sent in response to a selection of a bookmark from the set of bookmarks, wherein the bookmark is associated with the Web page (Steps 1000 and 1002, Figure 10, page 22, lines 23-25). A determination is made whether an error has occurred in retrieving the Web page (Step 1004, Figure 10, page 22, lines 25-27) and the bookmark is removed in response to determining that an error has occurred in retrieving the Web page (Step 1014, Figure 10, page 23, lines 4-7).

D. CLAIM 20 – INDEPENDENT

The subject matter of claim 20 is directed to a data processing system for pruning search engine indices. The data processing system (200, Figure 2, page 9, lines 21-25) comprises a bus system (including busses 206, 212 and 216, Figure 2, page 9, line 25- page 10, line 11), a communications unit connected to the bus system (modem 218 and network adapter 220, Figure 2, page 10, lines 9-11), a memory (209, Figure 2, page 9, lines 29-31) connected to the bus system that includes a set of instructions, and a processing unit (202, 204, Figure 2, page 9, lines 27-28) connected to the bus system that executes the set of instructions to receive a notification from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords (page 16, lines 6-16). The processing unit automatically deletes the Web page from the search engine indices in response to receiving the notification (page 17, lines 4-10).

E. CLAIM 21 – INDEPENDENT

The subject matter of claim 21 is directed to a data processing system for managing entries in a Web page database. The data processing system (200, Figure 2, page 9, lines 21-25) comprises a bus system (including busses 206, 212 and 216, Figure 2, page 9, line 25- page 10, line 11), a communications unit connected to the bus system (modem 218 and network adapter 220, Figure 2, page 10, lines 9-11), a memory (209, Figure 2, page 9, lines 29-31) connected to the bus system that includes a set of instructions, and a processing unit (202, 204, Figure 2, page 9, lines 27-28) connected to the bus system that executes the set of instructions to receive a notification by a search engine (506, Figure 5, page 15, line 13) from a client browser (506, Figure 5, page 15, lines 8-9) that a retrieval error occurred for a Web page (page 16, lines 6-16). The processing unit automatically deletes an entry associated with the Web page from the Web page database in response to receiving the notification (page 17, lines 4-10).

F. CLAIM 23 – INDEPENDENT

The subject matter of claim 22 is directed to a data processing system for managing a set of bookmarks for a browser. The data processing system (200, Figure 2, page 9, lines 21-25) comprises a bus system (including busses 206, 212 and 216, Figure 2, page 9, line 25- page 10, line 11), a communications unit (modem 218 and network adapter 220, Figure 2, page 10, lines 9-11) connected to the bus system, a memory (209, Figure 2, page 9, lines 29-31) connected to the bus system that includes a set of instructions, and a processing unit (202, 204, Figure 2, page 9, lines 27-28) connected to the bus system that executes the set of instructions to send a request for a Web page in response to a selection of a bookmark from the set of bookmarks in which the bookmark is associated with the Web page, and removes the bookmark in response to determining that an error has occurred in retrieving the Web page (page 22, line 23-page 23, line 7).

G. CLAIM 24 – INDEPENDENT

The subject matter of claim 24 is directed to a data processing system for pruning search engine indices. The data processing system (200, Figure 2, page 9, lines 21-25) comprises first means (202, 204, Figure 2, page 9, lines 27-28) for receiving a notification from a client browser (502, Figure 5, page 15, line 8-9) that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords, and deleting means for automatically deleting the Web page from the search engine indices in response to receiving the notification (202, 204, Figure 2, page 9, lines 27-28).

H. CLAIM 31 – INDEPENDENT

The subject matter of claim 31 is directed to a data processing system for managing entries in a Web page database. The data processing system (200, Figure 2, page 9, lines 21-25) comprises receiving means (202, 204, Figure 2, page 9, lines 27-28) for receiving a notification from a client browser that a retrieval error occurred for a Web page, and deleting means (202, 204,

Figure 2, page 9, lines 27-28) for automatically deleting an entry associated with the Web page from the Web page database in response to receiving the notification.

I. CLAIM 39 – INDEPENDENT

The subject matter of claim 39 is directed to a data processing system for managing a set of bookmarks for a browser. The data processing system (300, Figure 3, page 11, lines 11-14) comprises sending means (browser 400, Figure 4, page 22, lines 18-25) for sending a request for a Web page in response to a selection of a bookmark from the set of bookmarks, wherein the bookmark is associated with the Web page, determining means (browser 400, Figure 4, page 22, lines 25-30) for determining whether an error has occurred in retrieving the Web page, and removing means (browser 400, Figure 4, page 22, line 31 –page 23, line 9) for removing the bookmark in response to determining that an error has occurred in retrieving the Web page.

J. CLAIM 43 – INDEPENDENT

The subject matter of claim 43 is directed to a computer program product in a computer readable medium for pruning search engine indices. The computer program product comprises first instructions for receiving by a search engine a notification from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords (524, Figure 5, 600, Figure 6, page 17, lines 4-7, page 17, line 28-page 18, line 10), and second instructions for automatically deleting the Web page from the search engine indices in response to receiving the notification (Step 906, Figure 9, page 21, lines 15-18, also see page 17, lines 7-10).

K. CLAIM 44 – INDEPENDENT

The subject matter of claim 44 is directed to a computer program product in a computer readable medium for managing entries in a Web page database. The computer program product comprises first instructions for receiving by a search engine a notification from a client browser that a

retrieval error occurred for a Web page (524, Figure 5, 600, Figure 6, page 17, lines 4-7, page 17, line 28-page 18, line 10), and second instructions for automatically deleting an entry associated with the Web page from the Web page database in response to receiving the notification (Step 906, Figure 9, page 21, lines 15-18).

L. CLAIM 46 – INDEPENDENT

The subject matter of claim 46 is directed to a computer program product in a computer readable medium for managing a set of bookmarks for a browser. The computer program product comprises first instructions for sending a request for a Web page in response to a selection of a bookmark from the set of bookmarks, wherein the bookmark is associated with the Web page (Steps 1000 and 1002, Figure 10, page 22, lines 23-25), second instructions for determining whether an error has occurred in retrieving the Web page (Step 1004, Figure 10, page 22, lines 25-27), and third instructions for removing the bookmark in response to determining that an error has occurred in retrieving the Web page (Step 1014, Figure 10, page 23, lines 4-7).

M. CLAIM 11 - DEPENDENT

The subject matter of claim 11, which depends from claim 8, recites that the notification of claim 8 is a first type of notification. The method further recites that a second type of notification be received from a client browser that at least one selected search term is absent from the Web page (Step 812, Figure 8, page 20, lines 1-15), and that an entry associated with the Web page be automatically deleted from the Web page database in response to receiving the second type of notification (See page 17, lines 4-24).

N. CLAIM 26 – DEPENDENT

The subject matter of claim 26, which depends from claim 24, requires that the receiving means of claim 24 be a first receiving means, and that the system further include a second receiving means (506, Figure 5, page 17, lines 4-24), for receiving a search request from the client browser

(502, Figure 5, page 17, lines 4-24), wherein the search request contains the selected keywords, and a searching means (506, Figure 5, page 17, lines 4-24) for searching the search engine indices for matches to the selected keywords to form a search. A sending means (508, Figure 5, page 17, lines 4-24) sends a result of the search to the client browser (502, Figure 5, page 17, lines 4-24).

O. CLAIM 34 - DEPENDENT

The subject matter of claim 34, which depends from claim 31, requires that the notification of claim 31 be a first type of notification, and that the receiving means be a first receiving means. The system further includes a second receiving means (506, Figure 5, page 17, lines 4-24) for receiving a second type of notification from a client browser (502, Figure 5, page 17, lines 4-24) that at least one selected search term is absent from the Web page and a deleting means (506, Figure 5, page 17, lines 4-24) for automatically deleting an entry associated with the Web page from the Web page database in response to receiving the second type of notification.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL**A. GROUND OF REJECTION 1 (Claims 1-12, 16-21, 23-35, 39-44 and 46)**

The Examiner has rejected claims 1-46 under 35 U.S.C. § 103(a) as being unpatentable over Glass et al. (U.S. Patent No. 6,253,204 B1) in view of Steele et al. (U.S. Patent Publication 2003/0191737 A1). Claims 13-15, 22, 36-38 and 45, however, were canceled in the Response to Office Action dated November 30, 2005, and are no longer in the case. Accordingly, it is assumed that the Examiner intended that the rejection apply only to claims 1-12, 16-21, 23-35, 39-44 and 46.

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1-12, 16-21, 23-35, 39-44 and 46)

The Examiner has rejected claims 1-46 under 35 U.S.C. § 103(a) as being unpatentable over Glass et al. (U.S. Patent No. 6,253,204 B1) in view of Steele et al. (U.S. Patent Publication 2003/0191737 A1). Claims 13-15, 22, 36-38 and 45, however, were canceled in the Response to Office Action dated November 30, 2005, and are no longer in the case. Accordingly, the following argument assumes that the Examiner intended that the rejection apply only to claims 1-12, 16-21, 23-35, 39-44 and 46.

A.1. Claims 1-12, 16-21, 23-35, 39-44 and 46

In finally rejecting the claims, the Examiner states:

- As per claims 1, 8, 13, 20-22, 24, 31, 36, 43-45, Glass et al discloses a method in a data processing system for pruning search engine indices, comprising:

- "Receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords" See Fig. 2-3, col. 5, lines 35-40, col. 8, lines 61-65.

In particular,

- Client browser: Glass teaches an old server-client system (see Fig. 2, col. 4, lines 23-37). A user requests a document such as "document 1" from the Web. The user must use a browser to retrieve document from the WWW. The browser is inherent in Glass reference. Even if the browser is not inherent, the Examiner provides an evident that it is well known in the art, the user must use a browser to view document from the Web (see Steel et al, Fig. 8, paragraph 0125). In the interest of prosecution, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use a browser as taught by Steel into the invention of Glass because the teaching would provide good presentation or viewing a document using a browser.
- Keywords: The request that contains "document 1" is inputted to the browser. Therefore, "document 1" corresponds to a keyword. After that "document 2" is also another keyword, when the user tries to retrieve it. The user is notified if the file is not found, and the browser automatically generates a message to send to the server (fig. 3, step 340). It is well known in the art that the query contains search terms where the search term is equivalent to the

keywords. An evident is submitted by Steel et al (See Fig. 15A, paragraph 0151, of Steel).

• **Search Engine:** Glass also teaches that a spider can be utilized (see the abstract, col. 7, lines 59-col. 8, lines 2). A spider can be located in the server (col. 8, lines 55-65). By definition of Microsoft Computer dictionary, Fifth Edition, the term "spider" is an automated program that searches the Internet for documents and indexes their addresses and content related information in a database and also called search engine or crawler. Therefore, this spider is considered equivalent with the "search engine" in the instant application. Since it is a program, the spider can be located in the server side of the system or client side or in the middle such as central system to search for information in the network. Therefore, as discussed above, the user send a message to the server and the spider receives it. A client reports the broken link to the server in which a spider located (as discussed above) (see col. 7, lines 15-16, 57-59).

Glass teaches that the server will modify the broken link in order to restore the link or delete a record after a period of time (see col. 8, lines 43-48).

Glass does not clearly teach that the system will "automatically deleting the Web page from the search engine indices in response to receiving the notification". However, Steel discloses a retrieving information system that allows a user to view a website. Steel discloses a search engine that search the central index (paragraph 0073). In addition, plurality of remote servers also disclose, where each server contains an index (See Fig. 5, of Steel). The Steel system has a capability of deleting the URL in their index if an error occurs in the central server or the sub server (paragraph 0082, 0094, and 0113 of Steel).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Glass by apply the teaching of Steel for deleting the web page from a search engine index because the combination would keep the record up-to-date, and reduce the time/cost searching for other user in later time.

Final Office Action dated January 3, 2006, pages 2-4.

Claim 1 of the present application on appeal herein is as follows:

1. A method in a data processing system for pruning search engine indices, the method comprising:
 - receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords; and
 - automatically deleting the Web page from the search engine indices in response to receiving the notification.

A fundamental notion of patent law is the concept that invention lies in the new combination of old elements. Therefore, a rule that every invention could be rejected as obvious by merely locating each element of the invention in the prior art and combining the references to formulate an obviousness rejection is inconsistent with the very nature of "invention."

Consequently, a rule exists that a combination of references made to establish a *prima facie* case of obviousness must be supported by some teaching, suggestion, or incentive contained in the prior art which would have led one of ordinary skill in the art to make the claimed invention.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The requirements for establishing a *prima facie* case of obviousness in view of a combination of references are set forth in detail in Section 2142 of the MPEP and include the requirements that the Examiner explain in detail why the combination of the teachings is proper, that the Examiner provide a clear and convincing line of reasoning as to why an artisan would have found the claimed invention obvious in light of the teachings of the references, and that the Examiner provide a showing that it is the prior art and not the Applicant's own disclosure that teaches the combination asserted by the Examiner.

Appellant respectfully submits that the Examiner has not established a *prima facie* case of obviousness in rejecting claims of the present application as being obvious over Glass et al. in view of Steele et al., and that the claims patentably distinguish over the references in their present form. With respect to claim 1, in particular, Appellant submits that neither Glass et al. (hereinafter "Glass") nor Steele et al. (hereinafter "Steele") discloses or suggests a method in a data processing system "for pruning search engine indices". Furthermore, Appellant submits that neither Glass nor Steele, considered alone or in combination, discloses or suggests "automatically deleting the Web page from the search engine indices" in response to "receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords" as additionally required by claim 1.

Glass discloses a technique for providing information to a user about the status of information links, such as hypertext links, found in network-based documents. In Glass, a user downloads a document 1 that contains a hypertext link to a document 2. The user then attempts to retrieve document 2, for example, by double clicking on the hypertext link; and an attempt is

made to connect with the server where document 2 is located. If document 2 is not available, the link is considered broken. If the link is broken, a mechanism is provided to change the presentation of document 2 on document 1 to indicate that there is a broken link to document 2. The presentation can be changed, for example, by changing the color of the HTML code associated with the information link, by putting an icon before and/or after the information link, or the like (see col. 5, lines 48-57 of Glass).

In rejecting claim 1, the Examiner refers to the teaching in Glass that a spider can be utilized. The Examiner further contends that a spider is equivalent to a search engine and that it can be located in a server; and, therefore, asserts that Glass discloses sending a notification that is received by a search engine (spider) in a server that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords. Appellant respectfully disagrees.

Initially, even if, as asserted by the Examiner, a spider can be construed as being a search engine, Glass discloses in the Abstract only that "A spider can be utilized to periodically check on whether links reported as broken have been restored". Similarly, col. 7, line 59-col. 8, line 6 of Glass reads as follows:

Fig. 14 is a flow chart of an exemplary spider process for periodically testing broken links. The process retrieves a list of broken links from the database (1410), preferably the data base shown in FIGS. 12A and 12B. For each link, the spider attempts a connection (1420). If the connection is not successful (1430-N), the database record is updated with information about the attempted connection (1435) and the next link is selected for processing (1480).

Glass only discloses using a spider to test broken links listed in a database such as shown in FIGS. 12A and 12B thereof which is simply a listing of broken links (see col. 7, lines 13-17 of Glass). Even if a spider can be considered a search engine, Glass nowhere discloses "receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords" as is required by claim 1.

Additionally, and as recognized by the Examiner, Glass also does not disclose "automatically deleting the Web page from the search engine indices in response to receiving the

notification" as recited in claim 1. The Examiner indicates, however, that this feature is disclosed by Steele, and refers to paragraphs 0082, 0094 and 0113 of Steele.

Steele discloses a mechanism "to remove references to stale links", and states as follows in paragraphs 0082, 0094 and 0113 referred to by the Examiner (note that in the following paragraphs, "SBA" refers to "server-based agent", "CI" refers to "central index", and "CSE" refers to "central search engine"):

[0082] As part of the update operation, the SBA 208 may review hypertext links in the pages on the local server 206. The reviewed links are then compared with a link list formed during the previous update operation to determine whether links have been added or subtracted. The SBA 208 includes the list of changed links in the index_delta file transferred to the CI 214. This information may then be used by the CI 214 to remove references to stale links using one or more of a number of methods described more fully hereinbelow.

[0094] The CI maintains in the index database an index for each URL that lists the URLs of pages that include a link to it or reference it. This is a library of URLs that relates each subject URL to other URLs that have a page linking to the subject URL. When index information is reported to the CI indicating that a particular URL has been deleted or moved, the CI may search the URL index to determine which URLs contain links to the deleted URL, and then send notification to the SBA at each of the referring servers. The local SBA may then take some action in response to such notification. For example, the SBA may notify the authors of the referring page, or the website administrator, that the link has been deleted or moved. The SBA may also be programmed to take automatic action. One example of automatic action that the SBA may take in view of a deleted or moved link is to add a warning to the html code of the referring page to indicate that the marked link is no longer valid. Another example is that the SBA may replace the link with a link to the root directory of the site to which the URL had hitherto been referring, if possible. Where the CI is notified that the URL has been moved, rather than deleted, the SBA at the referring site may be configured to update the link to the new URL.

[0113] Upon determining that the target document has been deleted or otherwise removed, the SBA may take one or more of the following actions. First, the SBA may transmit a message to the server administrator, at step 606, notifying the administrator of the change of the target document. The administrator may also be informed as to which source document or documents on the server contain a link to the target document in question. If authorized or configured to do so, the SBA may automatically amend the source document, for example, by inserting a mark in the source document to indicate that the link is invalid, in step 608. Additionally, the SBA may be authorized or configured to remove the link from the source document, at step 610. Furthermore, the

SBA may be authorized or configured to replace the link to the current subject document with a new link to an alternative target document, at step 612.

Steele discloses that when a URL has been deleted or moved, some appropriate action may be taken such as notifying an author or an administrator that a link has been deleted or moved, add a warning to HTML code to indicate that a marked link is no longer valid, or remove or replace a link from a source document or the like. Nowhere does Steele disclose or suggest "automatically deleting the Web page from the search engine indices in response to receiving the notification" as recited in claim 1.

Neither Glass nor Steele teaches or suggests "receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords", and "automatically deleting the Web page from the search engine indices in response to receiving the notification", as recited in claim 1, and any combination of Glass and Steele would not achieve the present invention as recited in claim 1.

Furthermore, there is no suggestion in either Glass or Steele to combine the references as proposed by the Examiner. In combining the references, the Examiner states that it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Glass by applying the teaching of Steele for deleting a web page from a search engine index because the combination would keep the record up-to-date, and reduce the time/cost searching for other users at a later time. Appellant submits, however, that since neither reference discloses automatically deleting a Web page from search engine indices because a user is not able to access the Web page from a hypertext link in a document, one of ordinary skill in the art, having both Glass and Steele before him would not consider modifying Glass as proposed by the Examiner. Therefore, the Examiner has not provided a clear and convincing line of reasoning as to why an artisan would have found the claimed invention obvious in light of the teachings of the references, and has not established a *prima facie* case of obviousness in rejecting claim 1.

Additionally, Appellant submits that the teachings of Glass and Steele are actually inconsistent with one another. In particular, Glass teaches use of a spider to periodically check links, and the Examiner attempts to use Steele for its teaching of deleting broken links. It would appear, accordingly, that the combination of Glass and Steele would try to periodically check links that have already been deleted which would not appear to be logical.

The Examiner has also not provided a showing that it is the prior art and not the Appellant's own disclosure that teaches the combination asserted by the Examiner. Only the present application teaches automatically deleting a Web page from search engine indices in response to receiving a notification that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords. Appellant submits, accordingly, that the Examiner is using hindsight based on Appellant's own disclosure in rejecting claim 1. Therefore, the Examiner has not established a *prima facie* case of obviousness in rejecting claim 1 for this reason as well.

In summary, there is no reasonable basis for combining the references as proposed by the Examiner, and, in addition, even if the references were combined as proposed by the Examiner, the combination would not teach or suggest the present invention as recited in claim 1. Claim 1, accordingly, patentably distinguishes over Glass in view of Steele, and it is respectfully requested that the Board not sustain the Examiner's Final Rejection of the claim.

Independent claims 8, 16, 20, 21, 23, 24, 31, 39, 43, 44 and 46 also patentably distinguish over Glass in view of Steele for similar reasons as discussed above with respect to claim 1. Claims 2-7, 9-12, 17-19, 25-30, 32-35 and 40-42 depend from and further restrict one of the independent claims, and patentably distinguish over Glass in view of Steele, at least by virtue of their dependency.

For at least all the above reasons, claims 1-12, 16-21, 23-35, 39-44 and 46 patentably distinguish over Glass in view of Steele, and it is respectfully requested that the Board not sustain the Examiner's Final Rejection of the claims.

A.2. Claims 11, 26 and 34

Claim 11 depends from claim 8 and additionally recites "receiving a second type of notification from a client browser that at least one selected search term is absent from the Web page" and "automatically deleting an entry associated with the Web page from the Web page database in response to receiving the second type of notification".

In rejecting claim 11, the Examiner refers to Col. 4, lines 40-55 of Glass as disclosing this feature:

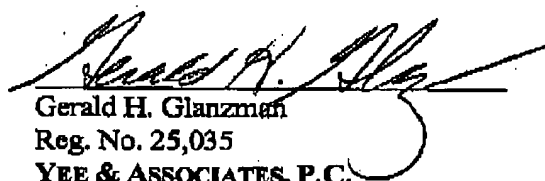
There are several reasons why a document (sometimes called file or page) may not be available. For example, a communications link linking the requesting user to a server may be down. Alternatively, the server itself may be down for maintenance or because of malfunction. It may also be that document 2 has been removed from the server or the address for document 2 on that server has been changed. It may also be that document 2 has been moved to another server. As another example, the information link pointing to document 2 may contain a typographical error (in the HTML of document 1) which does not accurately point to document 2.

Some of these reasons for an information link being broken are merely temporary. Others, are substantially permanent.

Nowhere in the above recitation, or anywhere else in Glass is there any disclosure or suggestion of "automatically deleting an entry associated with the Web page from the Web page database in response to receiving the second type of notification" from a client browser that at least one selected search term is absent from the Web page. Neither Glass nor Steele contains any such disclosure, and only the present application contains any such disclosure. Claim 11, accordingly, patentably distinguishes over the references in its own right as well as by virtue of its dependency from claim 8.

Claims 26 and 34 recite similar subject matter as claim 11, and also patentably distinguish over the cited art in their own right as well as by virtue of their dependency.

The Board is, accordingly, respectfully requested to not sustain the Examiner's Final Rejection of claims 11, 26 and 34 for this reason as well.



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CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1. A method in a data processing system for pruning search engine indices, the method comprising:

receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords; and
automatically deleting the Web page from the search engine indices in response to receiving the notification.

2. The method of claim 1, wherein the step of automatically deleting is initiated if the notification results in a minimum number of notifications being received for the Web page.

3. The method of claim 1 further comprising:

receiving a search request from the client browser, wherein the search request contains the selected keywords;

searching the search engine indices for matches to the selected keywords to form a search; and

sending a result of the search to the client browser.

4. The method of claim 3, wherein the result includes an indication that the data processing system includes a search engine to cause the client browser to send the notification to the data processing system.

5. The method of claim 4, wherein the search request includes other keywords in addition to the selected keywords.
6. The method of claim 1, wherein the retrieval error indicates that the Web page is absent.
7. The method of claim 1, wherein the method is located in one of a search engine or a Web portal.
8. A method in a data processing system for managing entries in a Web page database, the method comprising:
 - receiving a notification by a search engine from a client browser that a retrieval error occurred for a Web page; and
 - automatically deleting an entry associated with the Web page from the Web page database in response to receiving the notification.
9. The method of claim 8, wherein the step of automatically deleting the entry occurs only if the notification causes a number of notifications received for the entry to exceed a threshold value.
10. The method of claim 8 further comprising:
 - receiving a search request from the client browser;
 - searching the Web page database for matches to the request to generate a result; and

sending the result generated from searching the Web page database to the client browser, wherein the result includes an indicator that the data processing system includes a search engine to cause the client browser to return the notification.

11. The method of claim 8, wherein the notification is a first type of notification and further comprising:

receiving a second type of notification from a client browser that at least one selected search term is absent from the Web page; and

automatically deleting an entry associated with the Web page from the Web page database in response to receiving the second type of notification.

12. The method of claim 8, wherein the method is located in one of a search engine or a Web portal.

16. A method in a data processing system for managing a set of bookmarks for a browser, the method comprising:

sending a request for a Web page in response to a selection of a bookmark from the set of bookmarks, wherein the bookmark is associated with the Web page;

determining whether an error has occurred in retrieving the Web page; and

removing the bookmark in response to determining that an error has occurred in retrieving the Web page.

17. The method of claim 16, wherein determining whether an error has occurred comprises:
determining whether the error has occurred more than a selected number of times; and
wherein removing the bookmark comprises:
removing the bookmark from the set of bookmarks in response to determining that the error has occurred more than the selected number of times.
18. The method of claim 16, wherein removing the bookmark comprises:
automatically removing the bookmark in response to determining that an error has occurred in retrieving the Web page.
19. The method of claim 16, wherein removing the bookmark comprises:
removing the bookmark in response to a user input to remove the bookmark.
20. A data processing system for pruning search engine indices, the data processing system comprising:
a bus system;
a communications unit connected to the bus system;
a memory connected to the bus system, wherein the memory includes a set of instructions; and
a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to receive a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords; and automatically delete the Web page from the search engine indices in response to

receiving the notification.

21. A data processing system for managing entries in a Web page database, the data processing system comprising:

a bus system;

a communications unit connected to the bus system;

a memory connected to the bus system, wherein the memory includes as a set of instructions; and

a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to receive a notification by a search engine from a client browser that a retrieval error occurred for a Web page; and automatically delete an entry associated with the Web page from the Web page database in response to receiving the notification.

23. A data processing system for managing a set of bookmarks for a browser, the data processing system comprising:

a bus system;

a communications unit connected to the bus system;

a memory connected to the bus system, wherein the memory includes a set of instructions; and

a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to send a request for a Web page in response to a selection of a bookmark from the set of bookmarks in which the bookmark is associated with the Web page and removes the bookmark in response to determining that an error has occurred in retrieving the Web page.

24. A data processing system for pruning search engine indices, the data processing system comprising:

first means for receiving a notification from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords; and

deleting means for automatically deleting the Web page from the search engine indices in response to receiving the notification.

25. The data processing system of claim 24, wherein the means of automatically deleting is initiated if the notification results in a minimum number of notifications being received for the Web page.

26. The data processing system of claim 24 wherein the receiving means is a first receiving means further comprising:

second receiving means for receiving a search request from the client browser, wherein the search request contains the selected keywords;

searching means for searching the search engine indices for matches to the selected keywords to form a search; and

sending means for sending a result of the search to the client browser.

27. The data processing system of claim 26, wherein the result includes an indication that the data processing system includes a search engine to cause the client browser to send the notification to the data processing system.

28. The data processing system of claim 27, wherein the search request includes other keywords in addition to the selected keywords.

29. The data processing system of claim 24, wherein the retrieval error indicates that the Web page is absent.

30. The data processing system of claim 24, wherein the data processing system is located in one of a search engine or a Web portal.

31. A data processing system for managing entries in a Web page database, the data processing system comprising:

receiving means for receiving a notification from a client browser that a retrieval error occurred for a Web page; and

deleting means for automatically deleting an entry associated with the Web page from the Web page database in response to receiving the notification.

32. The data processing system of claim 31, wherein the deleting means is initiated only if the notification causes a number of notifications received for the entry to exceed a threshold value.

33. The data processing system of claim 31 further comprising:

receiving means for receiving a search request from the client browser;

searching means for searching the Web page database for matches to the request to generate a result; and

sending means for sending the result generated from searching the Web page database to the client browser, wherein the result includes an indicator that the data processing system includes a search engine to cause the client browser to return the notification.

34. The data processing system of claim 31, wherein the notification is a first type of notification and the receiving means is a first receiving means and further comprising:

second receiving means for receiving a second type of notification from a client browser that at least one selected search term is absent from the Web page; and

deleting means for automatically deleting an entry associated with the Web page from the Web page database in response to receiving the second type of notification.

35. The data processing system of claim 31, wherein the receiving means and the deleting means are located in one of a search engine or a Web portal.

39. A data processing system for managing a set of bookmarks for a browser, the data processing system comprising:

sending means for sending a request for a Web page in response to a selection of a bookmark from the set of bookmarks, wherein the bookmark is associated with the Web page;

determining means for determining whether an error has occurred in retrieving the Web page; and

removing means for removing the bookmark in response to determining that an error has occurred in retrieving the Web page.

40. The data processing system of claim 39, wherein the determining means comprises:
determining means for determining whether the error has occurred more than a selected number of times; and

wherein the removing means comprises:

removing means for removing the bookmark from the set of bookmarks in response to determining that the error has occurred more than the selected number of times.

41. The data processing system of claim 40, wherein the removing means comprises:
generating means for generating a user prompt to remove the bookmark in response to determining that the error has occurred more than the selected number of times.

42. The data processing system of claim 41, wherein the removing means comprises:
removing means for removing the bookmark in response to a user input to remove the bookmark.

43. A computer program product in a computer readable medium for pruning search engine indices, the computer program product comprising:

first instructions for receiving by a search engine a notification from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords; and

second instructions for automatically deleting the Web page from the search engine indices in response to receiving the notification.

44. A computer program product in a computer readable medium for managing entries in a Web page database, the computer program product comprising:

first instructions for receiving by a search engine a notification from a client browser that a retrieval error occurred for a Web page; and

second instructions for automatically deleting an entry associated with the Web page from the Web page database in response to receiving the notification.

46. A computer program product in a computer readable medium for managing a set of bookmarks for a browser, the computer program product comprising:

first instructions for sending a request for a Web page in response to a selection of a bookmark from the set of bookmarks, wherein the bookmark is associated with the Web page;

second instructions for determining whether an error has occurred in retrieving the Web page; and

third instructions for removing the bookmark in response to determining that an error has occurred in retrieving the Web page.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.